REMARKS/ARGUMENTS

In response to the obviousness rejection, applicants have amended their claims to more particularly point out their invention, and request the Examiner to reconsider and allow this case in view of the claim amendments and the following remarks.

As described in applicants' specification, one exemplary illustrative non-limiting implementation provides "a compact image element encoding format that selectively allocates bits on an element-by-element basis to allocate encoding bits within some image elements for modeling semi-transparency while using those same bits for other purposes (e.g., higher color resolution) in other image elements not requiring a semi-transparency value (e.g., for opaque image elements)." See page 7, lines 5-13 (emphasis added). Thus, a single texture map in such an illustrative exemplary non-limiting implementation may include differently-formatted types of image elements, one providing lower color resolution and multi-bit semi-transparency, another providing higher color resolution and no multi-bit semi-transparency:

> A first texel encoded with a semi-transparency value and having first color resolution; and a second texel encoded without any semi-transparency value and having second color resolution greater than the first color resolution."

See bottom of page 7 of applicants' specification.

The Dye reference addresses a particular problem of performing "a transparency bit block transfer on an object, while also resizing the object." See column 2, lines 50-52. The specific problem Dye addresses is how to carry a single transparency bit from an original image into a resized image as part of a resizing operation:

> In certain instances, it may be advantageous to perform a transparency bit block transfer on an object, while also resizing the object. A problem arises, however, when a resize BitBLT is combined with a transparency BitBLT because of the fact that the transparency enable bit is lost during resizing operations. Take, for example, an image with sixty-four pixels, twenty of which are transparency enabled. If the image is reduced from sixty-four to sixteen pixels, there is no clear technique available to maintain the integrity of the transparency bit embedded in the image. As a result, the transparency bit value must either be disregarded or the subject of error. Without the use of the embedded transparency bit, there is no quick method for performing the transparency BitBLT.

Col. 2, lines 50 and following.

Dye's solution is to embed a single transparency bit into <u>each and every pixel</u> of the resized image, and to selectively enable or not enable (set or not set) that transparency bit based on comparisons performed. See column 11, lines 7-24 of Dye:

> Once the image has been resized, but preferably before the image is written to the destination pixel array in the frame buffer, the color compare logic 425 determines which pixels should be written and which should be made transparent, and proceeds to embed <u>a transparency enable bit as part of the pixel field for each pixel in the resized image</u>. Upper and lower registers for each color preferably are loaded with threshold values to permit certain colors or certain combinations of colors to be made transparent. Colors within a defined range, or combinations of ranges, may then be made transparent <u>by setting the transparency enable bit for all pixels within the color range or ranges</u>. Alternatively, certain colors may be written based upon the color comparison. As yet another possibility, certain pixels may be masked based upon the results of the color comparison.

(Emphasis added.)

Dye further expressly teaches at col. 8 lines 4 and following that all pixels in the resized image have the same format including the same color resolution and transparency bit:

> Bits 4, 5 and 6 of the LNCNIL preferably determine the pixel format. Some of the available formats encoded by bits 4, 5 and 6 include a 16 bit per pixel (bpp) width with a 1:5:5:5 format (where the 1 represents a transparency bit, and the 5's represent compressed red, green and blue values); a YUV format; a 32 bpp format; and a 24 bpp format.

Note that since Dye does not provide for the LNCNIL register to be set on a pixel-by-pixel basis, each output pixel has the same format such as for example 16 bits per pixel with one-bit transparency, and a 15-bit wide color component portion including 5 bits each of RGB color information.

Applicants have amended their claims to better distinguish over Dye, for example:

- independent claim 1 as amended requires, in combination, "different ones of said stored plural image data elements for said image providing different color resolution precisions";
- independent claim 5 as amended requires, in combination, "only some but not all of said plural data elements for said image allocating bit positions for semi-transparency, others of said elements for said image using said bit positions to provide increased color resolution";
- independent claim 14 as amended requires, in combination, "different instances of said format encoding the same image using particular bits for different purposes, some of said instances using said particular bits to

encode semi-transparency encoding, others of said instances using said particular bits to provide increased color resolution";

- independent claim 18 as amended requires, in combination, "if said specifying step specifies that said image element will not encode semi-transparency, allocating said set of plural bits to set forth RGB color information so the element provides color information at a second precision greater than said first precision"; and
- new independent claim 24 as amended requires, in combination, "some of said texel data elements providing a first color resolution and including multiple bits allocated for encoding semi-transparency, others of said texel data elements not encoding semi-transparency but instead reallocating said multiple bits so the texel data element provides a second color resolution higher than said first color resolution".

These features are not taught or suggested by Dye. Duluk does not provide the missing teachings.

To whatever extent the Examiner may be relying on a combination of Dye's "before" and "after" resized image representations, such reliance is misplaced. Clearly, Dye's image after resizing is a different image stored in a different memory area as compared to the one he started with (e.g., it is stretched or shrunk by e.g. converting one pixel into four pixels or four pixels into one pixel for "blitting" (block transfer) into a frame buffer– see col. 2, lines 10-14).

Furthermore, in connection with the rejection of claim 21, Dye's Col. 7, lines 19-44 cited by the Examiner fails to teach or suggest independent claim 21's requirement, in combination, "said converter quantizing or dequantizing first resolution semi-transparency information into a predetermined number of equal sized steps to form second resolution semi-transparency information." As discussed above, Dye does not appear to disclose "semi-transparency" since his output results are designated as either transparent or not transparent. See page 3, line 17 and following of applicant's specification. Converting one pixel into four or vice versa is not the same as quantizing or dequantizing semi-transparency information.

All outstanding issues have been addressed, and the subject application is believed to be in condition for allowance. Should any minor issues remain, the Examiner is encouraged to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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